PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: MacDonald S. MORRIS *et al.*	)
	)
Application No.: 10/700,618	) Group Art Unit: 1634
	)
Filed: November 5, 2003	) Examiner: F. Wei Min Lu
	)
For: SELECTING TAG NUCLEIC ACIDS	) Confirmation No.: 4873

Commissioner of Patents and Trademarks
U.S. Patent and Trademark Office
P.O. Box 1450
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INFORMATION DISCLOSURE STATEMENT

In accordance with the duty of disclosure set for the in 37 C.F.R. §1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§1.97 and 1.98. Pursuant to 37 C.F.R. §1.98, copies of Foreign Patent Documents Cites 1-5 and Non-Patent Literature Cite 1, cited in the attached Form PTO/SB/08a are not being provided because the publications were previously submitted to the Office in prior Application Serial No. 10/226,355 to which the above-identified application claims priority.

A European Opposition proceeding has been initiated, wherein a granted Affymetrix European patent related to the above-identified application is being challenged. The European patent being opposed is EP 0799897 and the opponent is Illumina, Inc. The opposed patent claims priority to US Application Serial No. 08/626,285 filed April 4, 1996. The above-identified application, 10/700,618 claims priority to 08/626,285. The opposition was filed on December 15, 2006 and the patentee has not yet filed a response. A copy of the

Notice of Opposition is included as Non-patent literature Cite No. 1 in Form SB/08a and was previously submitted in prior Application Serial No. 10/266,355.

The granted, opposed claims are generally directed to kits comprising tag arrays and methods of using the claimed tag arrays. The opposed claims are attached as Exhibit 1. The issues in the opposition are allegations of lack of novelty and inventive step, allegations that the patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, and that the subject matter of the patent extends beyond the content of the application as filed. In the notice of opposition the opponent cites the following 8 references.

References cited:

US 5,149,625 (Form SB/08a, US Patent Cite No 1) (previously cited)
US 5,451,505 (Form SB/O8a, US Patent Cite No 2) (previously cited)
US 5,412,087 (Form SB/O8a, US Patent Cite No 3) (previously cited)
WO 92/10588 (Form SB/O8a, Foreign Patent Document Cite No 1)
WO 93/25563 (Form SB/O8a, Foreign Patent Document Cite No 2)
WO 93/17126 (Form SB/O8a, Foreign Patent Document Cite No 3)
WO 95/09248 (Form SB/O8a, Foreign Patent Document Cite No 4)
WO 96/12014 (Form SB/O8a, Foreign Patent Document Cite No 5)

As indicated above, US Patent Nos. 5,412,087, 5,451,505, and 5,149,625 have been previously cited in an IDS filed in the instant application. The remaining documents have not previously been cited in an IDS, but documents related to Foreign Patent Document Cite Nos. 1, 2, and 5 have been cited during the prosecution of the instant application as follows. Document WO 96/12014 is a publication of Application No. PCT/US95/12971 which claims the benefit of previously cited US Patent 5,604,097. Other US patent in this family

that have been cited in an IDS in the instant application are 5,654,413, 5,635,400, 5,846,719, 6,172,214, 6,172,218, 6,150,516, and 6,280,935. Document WO 92/10588 and previously cited US Patent 5,800,992 both claim priority to US Application No. 07/624,114. Document WO 93/25563 is related to previously cited US Patent No. 5,981,176.

Applicants also cite in the attached Form SB/08a, US Patent No. 6,401,267, which is related to Document WO 95/09248 and was cited by the Examiner in related Application Serial No. 10/226,355.

This Information Disclosure Statement is filed after the period specified in 37 C.F.R. § 1.97(b), but before the mailing of a final action under 37 C.F.R. §1.113. The fee set forth in 37 C.F.R. §1.17(p) has been submitted herewith. It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO-1449 to the undersigned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 01-0431.

Respectfully submitted,

Date: **April 5, 2007** By: /Sandra E. Wells/
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Exhibit: Opposed claims

Exhibit 1. Opposed Claims of EP 0 799 897

1. A kit comprising an array of 100 to 100,000 different sets of experimental oligonucleotide probes immobilised on a surface and a set of nucleic acid tags, wherein said experimental probes are selected to have sequences complementary to the sequences of the set of nucleic acid tags, said set of tags having uniform hybridisation characteristics such that all of the tags in the set may be detected by hybridisation to the array using a single set of hybridisation and wash conditions, and wherein each probe on the array does not cross-hybridise with tags complementary to other probes on the array.

2. A method for simultaneously detecting a plurality of test nucleic acids in a target sample by hybridisation to an array as defined in claim 1, wherein:-

(a) said array comprises sets of experimental probes which do not cross-hybridise to target nucleic acids under stringent conditions, each set comprising a homogenous population of oligonucleotide probes; and

(b) the test nucleic acids in the target sample which have been labelled with tag sequences which bind to the experimental probes in the array; and wherein sequences of the tags are chosen such that all of the tags may be detected by hybridisation to the array using a single set of hybridisation and wash conditions, and such that each tag in the set does not cross-hybridise with the probes complementary to other tags in the set.

3. The use of a kit as claimed in claim 1 for simultaneous detection of a plurality of test nucleic acids in a target, said test nucleic acids comprising said tags from the set of nucleic acid tags, by hybridisation of the tag nucleic acids to the array of oligonucleotide probes

said array comprising sets of experimental probes which do not cross-hybridise to target nucleic acids under stringent conditions, each set comprising a homogenous population of oligonucleotide probes.

4. A kit as claimed in claim 1 or a method or use as claimed in claims 2 or 3, wherein the array contains more than 100 different probe sets per cm^2, optionally wherein the array contains more than 1,000 probe sets per cm^2, preferably more than 10,000 per cm^2.

5. A kit, method or use as claimed in any preceding claim wherein each probe set on the array differs from every other probe set on the array by the arrangement of at least two nucleotides.

6. A kit, method or use as claimed in any preceding claim wherein the G+C ratio of the probes of the array is substantially identical and does not vary by more than 5%.

7. A method or use as claimed in any of claims 2 to 6 wherein the tags are from about 8 to 150 nucleotides, optionally between about 10 and 100 nucleotides, preferably between about 15 and 30 nucleotides.

8. A method or use as claimed in claim 7 wherein the tags are about 20 nucleotides.

9. A kit, method or use as claimed in any preceding claim wherein said array comprises a control probe.

10. A kit, method or use as claimed in any preceding claim, wherein said solid support is selected from the group consisting of slides, beads; polymeric chips, particles, strands, precipitates, gels, sheets, tubing, spheres, containers, capillaries, pads, slices, films and plates.